

Three profiles of information users

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ABSTRACT

This research was about information literacy in university students; it means, the abilities developed by students during their school years to search, find and assess information in order to solve problems in particular contexts. The objective of this study was to identify the specific characteristics of first year university students as users of information in an academic context. Current definitions about information literacy are presented, drawing on contributions by the Association of College and Research Library – ACRL [1]. A complementary historical and social standpoint about information literacy is also introduced by Ferreira, Dudziak [2]. These perspectives were the basis to build a renewed concept about information literacy framed within principles of Discursive Semiotics [3] [4] (Fontanille, 2001; Greimas, 1989). Based on the concept built of information literacy, was designed an “*observational instrument*” integrated by one self-observation test, and one experience of information research. Three profiles of users were identified: Collectors, Verifiers, and Analysts.

Key words: information literacy, university students, digital divide, digital skills.

1. INTRODUCTION

The objective of this study was characterizing the information literacy of first year university students as users of information in an academic context. The research contributes with relevant information to the comprehension of the different ways in which information users interact with the complex sources of knowledge in their “daily life”.

It helps to identify some of the factors that could be affecting today not only higher but also college education related with the development of those basic skills demanded by the information society.

This subject brings relevant reflections to feedback the discussion about the skills needed in the context of the information society to access and remain in the educational system and to start to be part of the work force today.

We must recognize that many efforts have been made in educational contexts in different countries in order to overcome the digital divide, but some analysts note with concern the emphasis that has been made in the use of technologies and skills purely instrumental setting aside the development of skills essential to access, evaluate, process and communicate information, and the scarce recognition about the role of social and cultural factors that might be affecting the development of such skills;

research in this area has begun to highlight as relevant this subject.

The educational system have to intervene in order to bridge the gap between teachers and students, and to generate relevant answers to handle the changes in the teaching and learning scenarios, which already have been affected by the possibilities that the information society offers to access multiple sources of information in new formats. This reality has impacted the academic spaces where information is a fundamental tool for the educational process.

2. CONCEPTUAL REFERENTS

The concept of Information Literacy is based on Greimas Model [4] complemented with Alvarado theory [5] about the different levels or ways of semiotic existence of the competence; it introduces some modality of epistemic order in which the subject beliefs and adhesions have a central role as constituents of the information literacy. In this construct, are interconnected the four modalities of semiotic existence which are essential part of the information literacy: *potencializante*, *virtualizante*, *actualizante*, *realizante*.

The *modality "Potencializante"* corresponds to the conceptions that the subject has about knowledge and how to get to know, which are expressed in the way the subject assumes a position to solve a problem, to satisfy an information need or to handle some situation related with information that represents a challenge for him or her.

The *modality "Virtualizante"* corresponds to the wishes and duties of the subject that prepare and moved him or her to perform an action, i.e. their motivations.

The *modality "Actualizante"* refers to the knowledge that the subject has about what to do and how to perform an information search. It demands knowledge about the context of the "task" and the recognition of the factors involved in their solution.

The *modality "Realizante"* is understood as the subject performance when using different

sources of information; it is expressed in the performance when the subject is accessing, evaluating and using information, and in the kind of actions implemented with the purpose of communicating the analysis made according with the information gathered.

3. METHOD

A descriptive observational study of qualitative type was conducted which is relevant for the research into formal education experiences when looking for describing the structure of particular phenomenon in order to respond to a question delimited and systematic [6].

Participants

The study had 178 first year students from four academic programs of the Pontificia Universidad Javeriana (psychology, modern languages, communication and language, and information science), and 107 students from the technology business and technology in Regency of pharmacy, Institute of projection and distance education, Universidad Industrial de Santander.

Instrument

The instrument designed to characterize the information literacy was structured based on the theoretical perspective of Marciales, González, Castañeda-Peña & Barbosa [7] and Barbosa Herrera, Marciales, & Castañeda-Peña, [8]. This perspective integrated the hierarchical relationship established by Greimas [4] and Alvarado [5], between the information literacy and the performance, where the first is conceived as a category of higher-order and it refers to the existence of a virtual instance that produces the performance, so that the performance is not the information literacy but it is its expression.

The instrument comprehend two parts: 1) Collecting facts, and 2) analysis of data.

- 1) Collecting facts: is integrated by a) profile questionnaire, b) information task, c) Semi-structured Interview

- 2) Data analysis: Based on a closed and categorical system. Closed because it is made up of previously defined categories; categorical because selected behaviors, events, and processes that occur within space and defined time limits, are classified considering the categories identified.

Procedure

The profile questionnaire was applied to the students; results were useful to identify trends in the practices related with the access and use of information. Given these trends, two students from different programs were selected and invited to participate voluntarily in the completion of an information task and in one semi-structured interview.

The information task was about “The bees and their communication behavior”; this theme was chosen taking into consideration the next reasons: a) research has been developed in this field, so it is possible to identify sources of information, b) the information task has already been tested and validated as a tool for research studies [9], and c). This theme is interesting for students and it involves them in the search for information

Participants were asked to imagine that they were taking a course on animal behavior; in this context they were asked to do an information search in order to write an essay about the chosen theme. Each student had 20 minutes to search for relevant information so that they could write the essay later; during this time they had to express aloud all their thoughts related with the information task. Completed the above task, students were informed that they do not really have to write an essay. Each one participated in an interview with the objective of gather information about the process followed by them during the development of the information task and the reasons they had to follow such a process.

4. RESULTS

Three profiles were identified: Profile one, collectors, profile two, verifiers, and profile three, analysts. Each one of these profiles is

described in this section. Each one comprehends the life trajectories of the subjects, and the adhesions, beliefs, motivations, attitudes and actions that underlie the way the subjects access, assess, and make use of information.

Profile one: Collectors

This profile is characterized by actions learned by trial and error when subjects were involved in an information task at school; the academic "success" is privileged, where success is measured by the obtained grades. Something that specially characterizes this profile is that subjects belief that truth exists in some place and that this place could be Internet, because “there is everything”. In addition, Internet is considered easy and fast. In this sense, students oriented their practices toward the search for the truth; they tend to collect much information. Motivations emerge from duty, i.e. what the students assume that is expected by an authority in terms of individual performance. Google and Wikipedia are used as the main search tools as well as the obvious keywords specified in the assigned task. There are no planning actions and information is copied directly from the selected sources.

Profile two: Verifiers

This profile is characterized by actions which have been learned in the family or at school. It is valued by the subjects the existence of different perspectives on a problem as a condition that the sources of information come from secure pages, validated by academic or scientific groups or by that knowledge derived from scientific journals or institutions specialized in the research topic. Google is considered as a tool to build a map of the territory, and books are a useful source when you have a general knowledge of the subject. The motivation to accomplish a task is oriented toward the achievement of goals of vocational training. The search for sources of information is done in pages with reliable data such as databases, and in the library.

Profile three: Analysts

This profile is characterized by learned actions due to family practices related with the ways to access and use of information sources, which have been strengthened in the school context. The most relevant information is the information which comes from pages with academic recognition, and books are considered as information sources that increase understanding. The use of Internet to access information sources depends on the task time limits. Motivations for the development of academic tasks are related with the personal life project, as well as with the value that the subject gives to new knowledge. The actions oriented toward the search for sources of information tend to start with the formulation of some own questions and the search are oriented taking into account the plan sketched according with these questions. Information sources with some academic validation are selected. The analysis and assessment of information takes place based on the own questions formulated at the beginning of the search.

5. CONCLUSIONS

Results reveal that the first year students have serious problems when they must appropriate knowledge from different sources of information; that problems are especially evident in the way they use information technologies (TIC) in academic tasks. In general, students begin their professional studies with abilities that correspond to profile one, collectors, and they are not oriented by teachers about how they could qualify those abilities. Data suggest that while school years previous to university studies do not have significant effect in the development of information skills (which are relevant for university education), the family context has a very important role in the development of such complex cognitive skills and information abilities.

From the profiles we can argue that informational literacy is the result of the network of relationships established by the subject along his or her life, trajectory that takes

part of a kaleidoscope of beliefs, motivation, skills and performance.

The conceptualization and description of informational literacy has an evident complexity. The analysis of the practices related with access, evaluation and use of sources of information in situated learning contexts are crossed by historical and cultural vectors. The above imposes limits on any claim of generalization.

The defined conceptual structure of informational literacy is a useful tool to characterize the way people access, evaluate and use sources of information taking into consideration their history, their traditions and the social uses of the sources of information, as well as the motivations, perspectives, and beliefs built by subjects in their communities of reference.

The informational literacy profiles reflect the personal stories of the subjects, in a particular context and some historical and cultural factors. Therefore, have a dynamic or historical nature which recognizes the immeasurable nature of the subject.

The observational tool developed in this study as a tool of higher-order makes possible a critical approach to the observation of the information literacy that carry out practices about access, evaluation and use of information sources in academic contexts, by students. As any research approach, it is not neutral because it comes from related experiential, epistemological, theoretical or methodological sources. This is why different strategies and techniques which are part of the instrument, have a dialogic character; the objective of that is to accomplish higher levels of comprehension in order to distinguish and point out to differences between users of information.

These results provide lights about the student's informational training because it is not only about accessing information sources; it is necessary to understand the student's practices in order to guide them.

Still it is needed research about informational literacy within the above framework; the results obtained with this research are not the end of the process; they contribute to the dialogue

about this subject with teachers and stakeholders.

6. REFERENCES

- [1] Association of College and Research Libraries (ACRL). *Information Literacy Competency Standards for Higher Education*. [Online: <http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.html>], 2000.
- [2] S.M.S.P Ferreira, y E. A. Dudziak, **La alfabetización informacional para la ciudadanía en América Latina: el punto de vista del usuario final de programas nacionales de información y/o inclusión social**. Proceedings: World Library and information Congress: 70th IFLA General Conference and Council. August 22-27, 2004.
- [3] J. Fontanille. **Semiótica del discurso**. Lima: Fondo de Cultura Económica, 2001.
- [4] A.J. Greimas. **Del sentido II: ensayos semióticos** (pp. 78-154). Madrid: Gredos, 1989.
- [5] G. Alvarado, **El concepto de competencia en la perspectiva de la educación superior**. Foro El concepto de competencia: su uso en educación técnica y superior. Mayo 25 de 2007. Universidad Industrial de Santander. Online: <http://groups.google.com/group/alianza-agro/web>, 2007.
- [6] C. Evertson & J. Green. **La observación como indagación y método**. En Wittrock, 1989.
- [7] G., Marciales Vivas, L. González Niño, H.Castañeda-Peña, y J.W. Barbosa Chacón. **Competencias Informacionales en Estudiantes Universitarios: una reconceptualización**. Universitas Psychologica 7, No. 3, 2008, pp. 613-954.
- [8] H. Castañeda-Peña, L. González, G.P. Marciales, J.C. Barbosa Herrera, J.W. Barbosa Chacón. **Collectors, verifiers and analysts: Information literacy profiles of first-year university students**, In press.
- [9] B. K. Hofer. Epistemological understanding as a metacognitive process: Thinking aloud during online searching. **Educational Psychologist**, 39(1), 2004, pp. 43-55.
- [10] J. Navarro. **La encuesta como texto: un enfoque cualitativo**. Comunicación presentada en el V Congreso Español de Sociología, Granada, 1995.